



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,256	02/14/2002	Michiaki Sakamoto	NE-1086-US/MR	5064
7590 04/13/2004				
McGinn & Gibb, PLLC Suite 200 8321 Old Courthouse Road Vienna, VA 22182-3817		EXAMINER TON, MINH TOAN T		
		ART UNIT PAPER NUMBER 2871		

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/074,256	Applicant(s) SAKAMOTO ET AL	
	Examiner Toan Ton	Art Unit 2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-7, 13-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Munakata (US 6373540).

Munakata discloses an active-matrix addressed reflective LCD comprising (see at least Figure 1A): a first transparent substrate (1); a second substrate (2); a lower insulation film (20) formed on the second substrate; a plurality of switching elements (8) respectively provided for each pixel, an insulation layer (9a) having a surface irregularly configured; a reflection film (9) formed on the insulation film and having an irregularly configured surface depending on the irregular surface of the insulation layer; a liquid crystal layer (3) provided between the first substrate and the reflection film, characterized by an upper electrode (11) being provided for each pixel and located in a region wherein the reflection film is provided, the upper electrode being electrically coupled to a source/drain electrode of the switching element; and a lower electrode (Cs) provided between the second substrate and the lower insulation film, the lower electrode inherently forming a storage capacitance with the upper electrode.

Munakata discloses (see at least Figure 1A) the irregularly configured surface of the insulation layer (9a) comprises a plurality of substantially linear projections, and a plurality of recesses surrounded by the linear projections.

Art Unit: 2871

Per claims 3-7 and 15-24, see at least Figures 1-2.

It is noted that “patterned by lithography” has been not been given patentable weight because they have been held that even though product-by-process claims are limited by and defined by process, determination of patentability is based on the product itself.

***Response to Arguments***

3. Applicant's arguments filed 02-04-04 have been fully considered but they are not persuasive.

Applicant's arguments are as follows:

(1) Munakata fails to disclose the pixel/upper electrode forming a storage capacitor with the lower electrode.

(2) Munakata fails to disclose the pixel electrode electrically coupled to the source electrode of a switching element, rather the pixel electrode electrically coupled to the drain electrode.

(3) Munakata fails to address the problems solved by the present invention.

(4) Munakata fails to disclose the “linear projections”.

Examiner's responses to Applicant's arguments are as follows:

(1) Figure 1a of Munakata shows the lower electrode inherently forming a storage capacitance with the upper/pixel electrode. A storage capacitance is inherently formed as follows: the pixel electrode electrically coupled with (9b, 18), an insulation film 17, and a lower electrode 18.

Art Unit: 2871

(2) The “source electrode” is used interchangeable to the “drain electrode” in the art.

(3) Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

(4) Figure 1a shows the irregular surface having protrusions/projections. Further, the claims have not defined “linear projections”. As shown in Figure 1a of Munakata, it shows the protrusions/projections.

### *Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2871

***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 6, 2004

  
TOANTON  
PRIMARY EXAMINER